

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 May 2004 (21.05.2004)

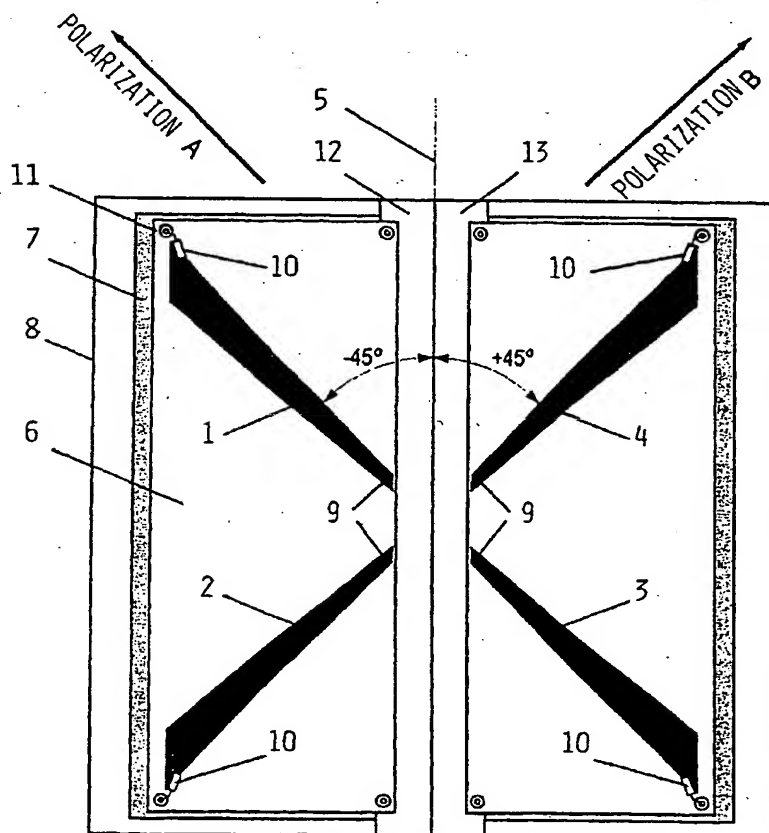
PCT

(10) International Publication Number
WO 2004/042427 A1

- (51) International Patent Classification⁷: G01V 3/12, (74) Agent: ABC-PATENT, SIVILING. ROLF CHR. B. LARSEN A.S.; Postboks 6150 Etterstad, N-0602 Oslo (NO).
- (21) International Application Number: PCT/NO2003/000332
- (22) International Filing Date: 6 October 2003 (06.10.2003)
- (25) Filing Language: Norwegian
- (26) Publication Language: English
- (30) Priority Data: 20025295 5 November 2002 (05.11.2002) NO
- (71) Applicant (for all designated States except US): 3D-RADAR AS [NO/NO]; O.S. Bragstads plass 2A, N-7491 Trondheim (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): EIDE, Egil [NO/NO]; Jonas Lies gate 3, N-7015 Trondheim (NO).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: ANTENNA SYSTEM FOR GEORADAR



(57) Abstract: An antenna system for ground penetrating radar, comprising at least two orthogonally mounted transmitter antenna elements (1, 2) and at least two orthogonally mounted receiver antenna elements (3, 4), in which the antenna elements consist of triangular monopoles formed by adding metal surfaces to a plate carrier (6), made of fibreglass substrate, that is mounted on the bottom side of a layer of radar absorbing material (7), wherein the upper side of the absorber is covered by a metallic ground plane (8).

WO 2004/042427 A1